Title: ENDOCARDIAL LEAD FOR A LEFT HEART CHAMBER

Dkt: 279.650US1

## **PENDING CLAIMS**

- 1. (Previously Presented) A lead comprising:
  - a lead body extending from a proximal end to a distal end; and an electrode coupled to the lead body;

wherein the lead body and the electrode each have an outer surface adapted to passively prevent formation of clots on the outer surfaces, wherein the outer surface of the lead body is adapted such that a pseudo-intimal layer is formed on the outer surface when exposed to a bloodstream, and wherein the outer surface of the electrode includes a textured coating including titanium microspheres.

- 2. (Withdrawn) The lead of claim 1, wherein the outer surface of the lead is textured so as to form a pseudo-intimal layer on the outer surface.
- 3. (Withdrawn) The lead of claim 1, wherein the lead body includes at least a portion seeded with endothelial cells or stem cells.
- 4. (Withdrawn) The lead of claim 1, wherein the lead body material includes a phospholipid polymer.
- 5. (Previously Presented) The lead of claim 1, wherein the titanium microspheres have a diameter of between 75-100  $\mu$ m.
- 6. (Cancelled)
- 7. (Previously Presented) The lead of claim 1, wherein the titanium microspheres are dimensioned to attract circulating blood cells so as to develop a uniform and tightly adherent biologic surface.

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The lead of claim 1, wherein the lead body includes an amino acid 8. (Withdrawn) sequence attached to a polymer, the amino acid sequence chosen to bind to cell receptors.

- 9. (Original) The lead of claim 1, wherein the outer surface of the lead does not include any active coatings which elute from the surface to minimize clotting.
- The lead of claim 1, wherein the lead is adapted to be coupled to a 10. (Previously Presented) pulse generator and is adapted for delivering cardiac resynchronization therapy.
- A lead comprising: 11. (Previously Presented)

a lead body extending from a proximal end to a distal end; and an electrode coupled to the lead body;

wherein the lead body has a textured outer surface adapted to form a pseudo-intimal layer on the outer surface when exposed to a bloodstream so as to passively prevent formation of clots on the outer surface; and

wherein the electrode includes an outer textured surface including titanium microspheres.

- 12. (Original) The lead of claim 11, wherein the electrode outer surface is adapted to trap blood cells within the textured surface to form a layer of blood cells on the electrode surface.
- 13. (Previously Presented) The lead of claim 11, wherein the titanium microspheres have a diameter of between 75-100 µm.
- 14. (Original) The lead of claim 11, wherein the outer surface of the lead does not include any active coatings which elute from the surface to minimize clotting.
- The lead of claim 11, wherein the titanium microspheres are 15. (Previously Presented) dimensioned to attract circulating blood cells so as to develop a uniform and tightly adherent biologic surface.

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The lead of claim 11, wherein the lead is adapted to be coupled to 16. (Previously Presented) a pulse generator and is adapted for delivering cardiac resynchronization therapy.

## 17. (Previously Presented) A lead comprising:

a lead body extending from a proximal end to a distal end;

an electrode coupled to the lead body; and

means for passively preventing formation of clots on the electrode and the lead body, wherein means for passively preventing clots on the electrode includes a titanium microsphere outer surface coating on at least a portion of the electrode, and wherein means for passively preventing clots on the lead body includes forming the lead body such that a pseudo-intimal layer is formed on an outer surface of the lead body when exposed to a bloodstream.

- The lead of claim 17, wherein the titanium microspheres are 18. (Previously Presented) dimensioned to attract circulating blood cells so as to develop a uniform and tightly adherent biologic surface.
- The lead of claim 17, wherein means for passively preventing includes at 19. (Withdrawn) least a portion of the lead body having an outer surface seeded with endothelial cells or stem cells.
- The lead of claim 17, wherein means for passively preventing includes the 20. (Withdrawn) lead body having an outer surface including a phospholipid polymer material.

## 21-23. (Cancelled)

The lead of claim 1, wherein the electrode includes a tip electrode. 24. (Previously Presented)